Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application:

Claim 1 (Currently Amended) A method for:

(a) differentiating animals and animal products on the basis of breed origin; or

(b) determining or testing the breed origin of an animal product; or

(c) validating an animal product;

comprising the steps of:

(i) providing a sample of the animal product; and

(ii) analysing the allele(s) of one or more breed determinant genes present in the sample;

wherein said animal is a pig; ~~and~~

wherein said breed determinant gene is [[a]] coat colour gene ~~selected from KIT or~~ αMSHR; and

wherein the ~~analysis~~ step of analysing the *αMSHR* gene [[(ii)]] comprises: (1) restriction fragment length polymorphism (RFLP) analysis, involving digesting the pig nucleic acid with one or more of the restriction enzymes BstUI, HhaI, and/or ~~BspFHI~~ BspHI, and/or (2) the ~~analysis step involves~~ identification of a polymorphism at nucleotide position 283, 305, 363, 370, 491, 727, 729, 1162, or between nucleotide positions 60 and 70, or between nucleotide positions 1005 and 1010 of the sequence of pig αMSHR gene.

Claims 2-9 (Cancelled)

Claim 10 (Currently Amended) A method of determining the coat colour genotype of a pig comprising:

(i) obtaining a sample of pig nucleic acid; and

(ii) analysing the nucleic acid obtained in (i) to determine which allele or alleles of the αMSHR gene is/are present,

wherein the analysis step (ii) comprises restriction fragment length polymorphism (RFLP) analysis, involving digesting the pig nucleic acid with one or more of the restriction enzymes BstUI, HhaI, and/or ~~BspFHI~~ BspHI, and/or the analysis step involves

identification of a polymorphism at nucleotide position 283, 305, 363, 370, 491, 727, 729, 1162, or between nucleotide positions 60 and 70, or between nucleotide positions 1005 and 1010 of the sequence of pig αMSHR gene.

Claims 11-47 (Cancelled)